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With every emergency and disaster comes uncertainty. To train ourselves to deal with uncertainty is difficult, but necessary. Next month the Athens Radio Club will participate in a Simulated Emergency Test (SET). SETs are designed to help the amateur community to discover its weaknesses and strengths. Dealing with emergency scenarios in advance should prepare us for what might be referred to as "impending uncertainty". Uncertainty can be defined as the "absence of information that may or may not be obtainable". (Rowe 1994, p. 743)

Obviously, dealing with uncertainty is difficult and unsettling, but perhaps if we understand some principles about uncertainty we can at least be a little more prepared intellectually. Let's look at the area of uncertainty that involves us directly as communicators: Translational Uncertainty.

In a real emergency what factor plays the most important role in responding to uncertainty? The answer: Information. Information is necessary to reduce uncertainty. As simple as that may sound there are some complex problems with getting and communicating information. It is important in these situations to transfer information to the decision-makers in a timely and accurate manner. This information must be transferred by communication to ensure the above requirements. In other words, translational uncertainty is very important and this is an area where we as communicators can make a difference. This type of uncertainty centers on communication effectiveness and communication misunderstandings. These problems result from: 1) different training levels resulting in extremes from untrained amateurs to those very well trained, 2) different perspectives on how to deal with the uncertainties, and 3) working in conjunction with practitioners of different professions.

These very problems can be dealt with in a very practical manner: Simulated Emergency Tests that are designed to help train us to deal with real life emergencies. Let's look at the solution for each of the problems.

Problem #1 is easily dealt with if amateurs become involved and take risks at getting involved. Test time is when we need to make mistakes so that we can learn from them. Taking part in an exercise like the SET helps us to understand the basic structure of communications and how Emergency Coordinators operate and what information they need communicated to them. It is important that we have a good working knowledge of what is and is not expected of us. We need to learn to conduct our efforts in a streamlined manner to increase our effectiveness as communicators.

Problem #2

We all have our own way of dealing with problems in everyday life. We also know whom to call on if we have a problem that we can not resolve. Training proves us with the opportunity to learn who knows what and what their area of interest is. Exercises like this also give us the occasion to express our perspectives during a drill so that we can find out in advance how logical and applicable they are in a real emergency.

Problem #3

The ARES works interchangeably with local, state, and federal organizations. This of course lends to translational uncertainty at a different level. We can not expect perfect communications between amateurs and the organizations that we work with, but we can practice at making communications better. Our goal is to reduce uncertainty by providing information that is correct and directed to those who need it. Although translational uncertainty is real, it is actually separate from the emergency. The problem is one of terminology. Different organizations have their own agendas and their own terms for simplifying their communications. There is already enough confusion during

an emergency without terminology problems. Training provides us with the chance to work along side these organizations and learn terminology before we cause more confusion at the worst possible time.

Lowry Rouse, the Georgia Section ARES Coordinator is working hard at developing a good solid SET. Ed Fuqua, N4VHA, Clarke County EC, has made the suggestion that with the propagation not being at it's best during the day on 75 meters, why not use the 40 meter frequency (7.275 MHz.) for checking in to the SET net. Lowry asked Ed if he would be the net control for 40 meters on SET Saturday, and he accepted. There will be two frequencies to send messages to for our SET operation. The other contact frequency is the 3.975 MHz. frequency that's most commonly used now. Lowry suggests that you may want to check-in on both frequencies for testing the best communication path for your location. If you do this then be sure to inform the net control you're checking in for test purposes. If you have any traffic make sure you pass it only once.

Lowry encourages all ARES members to check-in by giving their location, name, and call to net control. When you check-in state that you are participating in the SET and available for any assignment related to the simulated emergency.

As you can see this is a well organized SET that all Amateurs can use to their benefit. I hope that the Athens Radio Club will use this SET to strengthen its weak spots and make a difference in the future. Let's not let uncertainties be a bigger problem than they need to be.

References:

Rowe, William D. 1994. Understanding Uncertainty. Risk Analysis 14(5): 743-750.

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Minutes from September 5, 2000

September 5, 2000

The meeting was called to order by President Ed Rollor, N4ZRA. There were 16 members and 5 guests present.

Secretary's Report: Robert Scales, KE4OGD, standing in for Elaine Scales, KE4TYW, asked for approval for the minutes as published in the last Emitter. Minutes were approved as they were listed on the ARC tin can net.

Hard copies of the Emitter were handed out.

Treasurer's Report: Jack Shrum, KF4GRZ

Total income 6/07/00 through 9/01/00 was \$252.47. \$100.00 is from dues, and \$70.00 is from additional BBQ income. Net income from the BBQ is now over \$1,300.00. Total expenses were \$35.00. Balance is \$2,028.26.

If you have paid your dues and do not have a membership card, see Jack Shrum, KF4GRZ. We now have 41 primary members and 58 total members.

Public Service Event Coordinator's Report: Bob Herrin, KE4JLL
There were six hams participating at the last University of Georgia home game. Everyone is encouraged to participate in communications for the Red Cross at the UGA home games. The Oconee County Scarecrow Race is coming up in October. The date is 10/21.

ARES Coordinator's Report: Ed Fuqua, N4VHA
Nationwide SET date is October 7&8. However, this date is subject to change for the Georgia SET. For the SET, the 40-meter frequency of 7.275 MHz and the 75-meter frequency of 3.975 MHz, will be used. We are asked to be aware of the Red Cross shelters in the state of Georgia. A list of all the Red Cross Shelters was passed out. Internet link will be posted on the club's web page. Our responsibility will be to pass traffic as to which shelters have space available.

Changing the time for both the state and local ARES net to an earlier time is being considered.

VE Exam Coordinator's Report: Ed Fuqua, KE4VHA.
Testing sessions should back soon. Several new ideas are being considered, such as testing at every meeting and scheduled individual testing.

Old Business: Ed Rollor, N4ZRA
There is a tower section that still needs to be moved for the dipole antenna. The phone patch will soon be converted to the Athens' Radio Club account.

Program: Ed Rollor, N4ZRA
The Application of the Science of Risk Communications to Amateur Radio and, specifically, the Amateur Radio Emergency Services.

Respectfully Submitted,
Elaine Scales, KE4TYW
ARC Secretary

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Club News

The Athens Radio Club has just completed its application for renewal for an ARRL Special Service Club. To keep club members informed we have included the following completed form. We are still waiting for full approval.

Form FSD-7

Application for Renewal as an ARRL Special Service Club

Renewal Information

Activity Report

Club Name: Athens Radio Club

New Ham Development and Training

Purpose: Develop an effective, coordinated program of public relations, recruiting, training and ongoing assistance targeted to prospective and newly licensed hams in your community.

Action:

1. At the present time a one-day training course is being planned for the end of the year or early next year. Club President Ed Rollor, N4ZRA, attended a one-day, free, no code Technician Class training session conducted by the Fayette County ARES and FCRA, on Saturday July 29th to help the Athens Radio Club evaluate this type of training.
 2. Flyers describing the focus of the ARC have been placed in the local Radio Shack stores.
 3. Last year (1999) Technician Classes were conducted and several attendees passed their exam.
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Public Relations

Purpose: Establish an effective Amateur Radio presence in your community, including contact with local media and coverage of your activities; Public Information Officer appointment.

Action:

1. The Athens Radio Club was featured in the Jan. 12, 2000 *Hometown* Section of the Athens Banner Herald.
 2. Ed Fuqua, N4VHA, the Clarke County ARES Emergency Coordinator, setup presentation opportunities at Merial and Sam's Club in Athens. Ed Rollor, N4ZRA, the ARC President, delivered a slide presentation entitled "The Science of Risk Communications and Its Application to Amateur Radio". After the presentation, information flyers pertaining to Amateur Radio and the Athens Radio Club were provided.
 3. Ed Fuqua, N4VHA, chaired a fund raiser committee to raise money for the ARC by having a Bar-B-Q at Sam's Club on the Atlanta Highway in Athens. A Special Event Station was setup, and ARC flyers were made available to visitors.
 4. Phil Koehler, AF4TQ, the ARC Public Information Officer, has been in contact with the local newspapers and cable TV companies. Phil submitted an article to the Athens Banner Herald concerning ARRL Field Day.
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Emergency Communications

Purpose: Club members should become skilled in communicating effectively during communications emergencies and be prepared to assist when needed; Official Emergency Station appointment and participation in ARES.

Action:

1. The ARC holds its weekly ARES NET every Sunday evening at 8:30 p.m.
2. The ARC takes part in the yearly East Georgia Chapter of the American Red Cross drills and seminars.
3. The ARC holds 2 Simulated Emergency Tests a year.
4. ARC President, Ed Rollor, N4ZRA, presents materials on Risk and Emergency Communications in the ARC Newsletter (The Emitter) and at club meetings.
5. Ed, N4ZRA, presented a talk entitled *The Application of the Science of Risk Communications to Amateur Radio and Specifically the Amateur Radio Emergency Service* at the Georgia ARES 2000 Annual Meeting on January 22, 2000.
6. Ed Fuqua, N4VHA, the Athens ARES Emergency Coordinator gave a presentation on the ARES and the annual Simulated Emergency Test.
7. Members of the ARC participated in the Red Cross training for Damage Assessment.

Technical Advancement

Purpose: Continuing education in the technical aspects of Amateur Radio to ensure that your club members are technically competent, familiar and comfortable with modern radio-electronics technology; Technical Specialist appointment.

Action:

1. The position of Technical Specialist (Education/Activities Chairman) is vacant at this time. The Vice President and President are taking responsibility for this position until the position is filled.
2. ARC programs to promote solid technical education have been presented on building and operating QRP rigs, how to operate and what equipment is needed for APRS, designing and building antennas, how to operate with PSK31, and circuit basics.

Operating Activities

Purpose: Active participation as a club in one or more major operating or operating support activities to ensure that your club maintains a high level of operating skill.

Action:

1. Communications for race officials at the Colbert 4th of July 5K foot race.
2. Communications for the American Red Cross First Aid at the University of Georgia Football Games.
3. Communications for race officials at the Oconee County Scarecrow Race.
4. The ARC has worked hard at promoting ARRL Field Day. We have operated CW, Phone, and Novice stations for the last 2 years. Over 30 people participated and/or visited us during our operations at the Athens Airport this year.
5. We operated a Special Event Station at our Annual Bar-B-Q Fund-raiser.
6. Communications for the annual Skate-to-Atlanta event.
7. Communications for the Alzheimer's Memory Walk in Athens every year.
8. Communications for the March of Dimes event every year.

Miscellaneous Activities

Purpose: Every active club has its special interests and activities that make it unique, that give it special personality. List three of these activities. See the ARRL Special Service Club Manual for ideas.

Action:

1. Before each ARC meeting we have an open grill for members to cook and then relax with other members. Free food is provided for our guest speaker and guests. During this time the HF rig is turned on so that members can work together making contacts.
2. This year the ARC started it's first Annual Bar-B-Q and Special Event Fund-raiser. This event will be held every year to raise funds, promote Amateur Radio, and to recruit new members.
3. The ARC has a Saturday morning breakfast every week to meet and discuss our personal interests in Amateur Radio and other endeavors.
4. The ARC has the opportunity to work with other amateur operators and amateur radio clubs at the University of Georgia football games in assisting the American Red Cross.
5. The ARC has an Annual Summer Picnic and Fox Hunt at Sandy Creek Park every year.
6. The ARC members recently worked together to put up a 500 foot loop antenna for an Amateur Radio Operator who moved to Athens recently. Since he is 88 years old, we provided him with the work force to get him operating on HF as soon as was possible.

SSC Update:*****

TO ALL OFFICERS AND MEMBERS OF THE ATHENS RADIO CLUB,
It is my pleasure to inform you that, effective immediately, the Athens Radio Club has been renewed as a Special Service Club. Congratulations to all of you for all of your hard work on behalf of amateur radio and its ideals. You are to be commended highly. Keep up the good work!

Sincerely,
Susan Swiderski
Affiliated Club Coordinator
GA. Section

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Announcements

The 2000 ARRL November Sweepstakes for stations in the US and Canada will be Nov. 4-6 for CW and Nov. 18-20 for phone. The object of this contest is to exchange QSO information with as many US and Canadian stations as possible on the 160, 80, 40, 20, 15, and 10 meter bands. For more details see <http://www.arrl.org/contests>.

The new RFI package developed by the ARRL Regulatory Information Branch can be found at: <http://www.arrl.org/field/regulations/rfi-legal/>.

The new license question pools for use on or after April 15 are located at:
<http://www.arrl.org/arrlvec/pools.html>.

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Calendar

October 3, 2000 – ARC meeting – 7:30 PM

grill open at 6:00 PM

Program: James Reeves, KF4AQO

Tool Box Equipment for Emergency Situations

October 2000 – Simulated Emergency Test (date to be announced)

October 21, 2000 – Scarecrow Run and Oconee Fall Festival

November 4, 2000 – Lawrenceville Hamfest

November 7, 2000 – ARC meeting – ELECTIONS

December 5, 2000 – ARC meeting – Vision 2001

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Local VE Sessions

First Sunday

WCARS VEC

2:00 PM (Except July and September)

Johnson High School

3305 Poplar Springs Road, Gainseville

Terry Jones, W4TL (770)967-6364

Second Tuesday

7:00 PM

Walton EMC Building

3645 Lenora Church Road, Snellville

Wayne Taylor, WD4CCA (770)498-7759

Second Saturday

CA VEC

8:30 AM

Stone Mountain Methodist Church

5312 West Mountain Street, Stone Mountain

Hal Martin, KI4RD (770)978-9160

Third Saturday

CA VEC

9:00 AM

Marietta First United Methodist Church

Room 305

56 Whitlock Avenue, Marietta

Larry Huff, WA4CQZ (770)955-3171

Fourth Tuesday

ARRL VEC

7:00 PM

United Way Service Center

6279 Fairburn Road, Douglasville

Jessie Clower, KB4WFK (770)942-6466

Fourth Friday

W5YI VEC

7:00 PM

St. John Neumann Church

801 Tom Smith Road, Lilburn

Headphones provided

Howie Gould, W9HG (770)921-8362

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Member News

Congratulations to Scott Sikes

Scott Sikes, KD4MSR, interim executive director of the office of development, has been elected president of the Georgia Planned Giving Council for the year 2000 by the 200-member statewide group of accountants, attorneys, bank trust officers, development officers from the major charitable organizations in the state, financial planners, life insurance agents, and stockbrokers. He represents the state of Georgia in the National Committee on Planned Giving, headquartered in Indianapolis.

Congratulations to Scott on this achievement. We realize that his employment will require more of his time in the future. We appreciate all the effort and time he has given to the Athens Radio Club and amateur radio in the past years.

Thank You From Phil, W4GTS

On the Saturday when the Georgia Bulldogs went to Columbia and threw five interceptions to the South Carolina Gamecocks, four ARC members came to my QTH and put up my loop antenna.

Phil, properly spelled Philip, with one "L", after the Saint and the Bible; Edward, no kin to Prince Edward; Scott, as in "great Scott" (the name of my great grand-nephew, whose last name is Morse—and may he grow up to be a CW operator); Edwin (certainly not Ed Wynn, the "perfect fool"). AKA AF4TQ, N4ZRA, KD4MSR, and N4VHA.

Thanks to them, the loop, 700 feet long and about 50 feet in the air, is absolutely great! It took them about 4 ½ hours (including ground rod and wire) to do what it took my friends in Marietta 7 hours.

It's nice to see men who have the proper tools and know how to use them. People here in the Athens area are nice and very smart!

73

Phil, W4GTS

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Ham News

New Repeater

The Athens area has a new 2-meter repeater that has been coordinated with the Southeastern Repeater Association (SERA). Rick Wright, W4LOC, the Georgia director for SERA, informed Jeff Crowell, KD4AOZ, last week that his 146.955 MHz (with a downshift and a tone of 123.0) repeater fit in the southeastern frequency coordination and had been approved. The repeater is located on the UGA campus.

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Excerpts from ARRL Newsletter

HOLLINGSWORTH SUGGESTS STEPS TO BRIGHTER AMATEUR FUTURE

Looking "beyond enforcement," FCC Special Counsel for Amateur Radio Enforcement Riley Hollingsworth, K4ZDH, has offered his ten personal suggestions to secure a sound future for Amateur Radio.

Speaking at the ARRL New England Division Convention August 26 in Boxboro, Massachusetts, Hollingsworth recapped the nearly two years since he took over Amateur

Radio enforcement. Hollingsworth proclaimed the Amateur Service "fundamentally sound" today and said complaints now are decreasing.

With some major enforcement issues out of the way, Hollingsworth encouraged amateurs to "seize the moment" to ensure a bright future for Amateur Radio. "Look beyond enforcement," he urged, "because if I do my job right, in five years you won't even remember my name." Hollingsworth said that while no one can predict the future, amateurs must invent theirs in an era of converging digital and RF technology.

And he reiterated a phrase that has become a Hollingsworth mantra: "There is no reason why our Amateur Radio Service can't be the envy of the rest of the world." Getting there, he suggested, comes with each amateur's taking responsibility for his or her behavior on the air. Amateurs should encourage arrogant, negative operators to "take their anger and hate to the Internet," he said. "Every minute they are on the Internet is a minute they aren't on Amateur Radio."

Among other suggestions, Hollingsworth said hams should be proud of what they have accomplished. "Let the public know what you are, what Amateur Radio is, and why it's valuable," he said. He also urged hams to "operate as if the whole world is listening" and to never let ham radio "become the audio version of The Jerry Springer Show."

He also called upon veteran hams to take newcomers under their wing and teach them "all you know" about the hobby.

Hollingsworth also expressed his support for the ARRL, which has backed his enforcement initiative on behalf of the FCC. "Take care of the one voice you have," he advised. "You must never doubt that a small group of dedicated people can change the world. They just did."

"Enjoy ham radio," Hollingsworth told his audience. "Celebrate it. But realize it comes with responsibility."

The complete list of Riley Hollingsworth's ten suggestions is available on Web edition of The ARRL Letter for September 1 at <http://www.arrl.org/arrlletter/>.

PHASE 3D LAUNCH CAMPAIGN POISED TO BEGIN

The launch campaign for Phase 3D will begin September 11, according to AMSAT-DL Vice President Peter Guelzow, DB2OS. If current schedules hold, the next-generation Amateur Radio satellite is expected to go into space in late October or early November. With the recent hospitalization of Phase 3D Project Manager Karl Meinzer, DJ4ZC, Guelzow has been tapped to serve as mission director and project manager during the launch campaign. He'll be assisted by Chuck Green, N0ADI.

The Phase 3D satellite remains at the European Spaceport in Korou, French Guiana, South America. During the launch campaign, some two dozen members of the Phase 3D

complete the ISS to 2006. The ISS partners have agreed to spread out the assembly missions.

For more information about Amateur Radio on the ISS and SAREX, visit the ARISS Web site, <http://ariss.gsfc.nasa.gov/>.

IARU REGION III CONFERENCE CALLS FOR MORSE EXAM PHASEOUT

The 11th International Amateur Radio Union Region III Conference ended September 1 by resolving to seek the ultimate removal of Morse code proficiency as an International Telecommunication Union licensing requirement for HF operation. As "an interim measure," the conference agreed to support the reduction of all Morse code testing speeds to 5 WPM.

"IARU Region III strongly supports Morse code as an effective and efficient mode of communication," the resolution said in its preamble. "However, it believes that the position of Morse as a qualifying criterion for an HF amateur license is not relevant to the healthy future of amateur radio."

The resolution urged IARU Region III member societies to seek an interim 5 WPM Morse code testing requirement while looking toward eventually eliminating the Morse requirement altogether. "We recommend that, setting aside any previous relevant decisions of earlier Conferences, a policy of the removal of Morse code testing as an ITU requirement for an amateur license to operate on frequencies below 30 MHz be adopted by IARU Region 3," the Conference resolution declared.

Voting in accordance with ARRL Board policy, International Affairs Vice President Rod Stafford, W6ROD, cast the lone dissenting vote on the League's behalf, although he voted in favor of an earlier motion to support 5 WPM as the top code speed for testing. The Hong Kong Amateur Radio Transmitting Society abstained. The Asian and Pacific region's other member societies favored the resolution.

The Region III Conference, meeting in Darwin, Australia, recommended that the IARU Administrative council adopt its position as IARU policy. Meeting September 3-4 in Darwin, the Administrative Council declined to act on the policy recommendation, however, until after the Region II conference next October in Guatemala.

Conference delegates addressed another concern related to ITU Radio Regulation S25, which requires that applicants demonstrate Morse proficiency to operate below 30 MHz. Some delegates worried over wording in a preliminary draft recommendation that includes reference to "radio telegraphy" among amateur license operating skills. Delegates were told that the ITU defines "radio telegraphy" to mean all digital modes, not just Morse. In a motion proposed by the Radio Society of Great Britain and seconded by the ARRL, the conference requested that the IARU Region III representatives to the IARU Administrative Council propose replacing the term "operating skills" with "methods of communication."

simple step-by-step worksheets for hams to use to help determine if their stations comply with the rules--and, if not, how to correct the problem. (RF Exposure and You is \$15. Order item #6621 from ARRL.)

Address questions about RF safety and the FCC exposure guidelines to ARRL Lab Supervisor Ed Hare, W1RFL, ehare@arrl.org.

ATLANTIS FERRYING INITIAL ARISS HAM GEAR INTO SPACE

The space shuttle Atlantis blasted off on schedule September 8, ringing Amateur Radio operation from the International Space Station a giant leap closer to reality. On board Atlantis is the initial Amateur Radio on the International Space Station equipment as well as other supplies needed by the Expedition 1 ISS crew members.

As part of the multinational ARISS project, the gear will be stowed aboard the ISS until the Expedition 1 crew comes aboard in late October. The Expedition 1 crew will consist of US astronaut Bill Shepherd, KD5GSL, and Russian Cosmonauts Sergei Krikalev, U5MIR, and Yuri Gaidzenko, whose call sign was not available.

Although astronaut Dan Burbank, KC5ZSX, is aboard Atlantis, there will be no Amateur Radio operation from the shuttle or the ISS during this mission, STS-106. Atlantis will deliver the ARISS VHF and UHF hand-held transceivers as well as a TNC for packet, a specially developed headset and signal adapter module plus power adapters and interconnecting cables.

The ARISS initial station gear will be installed temporarily aboard the Functional Cargo Block module and use an existing antenna that's being adapted to support FM voice and packet on 2 meters but not on 70 cm. The ARISS gear will get a more-permanent home aboard the Service Module next year, once VHF and UHF antennas can be installed.

During the nearly two-week STS-106 shuttle mission, the seven-member crew will unload space station supplies from both the shuttle and from a Russian Progress cargo ship that's now docked at the ISS.

NASA and the Russian space organization Energia have signed agreements that spell out the place of Amateur Radio aboard the ISS. A technical team, called ISS Ham, has been officially set up to serve as the interface to support hardware development, crew training and operations from space.

A Russian call sign, RZ3DZR, has been issued for the ISS ham radio station. A German call sign, DL0ISS, also has been issued, and a US call sign will be applied for.

The \$60-billion International Space Station is being built jointly by the US, Russia, the European Space Agency, Canada and Japan. NASA this week extended the deadline to

While raising the injured rock climber to the top of the rock wall, Rieden says, some rocks that were kicked loose struck another member of the original climbing party. She also had to be evacuated.

"This was a biggie," Rieden said of the rescue operation. He estimated that the mission involved more than 100 people, including 16 from the New Mexico Search and Rescue Support Team, who logged some 210 work hours.

RF SAFETY RULES NOW IN FORCE FOR ALL AMATEURS

The time has come! Starting Friday, September 1, every US amateur was required to fully comply with the FCC's RF exposure guidelines.

The regulations, which went into effect January 1, 1998, require US Amateur Radio operators to read and understand the rules and, where necessary, perform technical evaluations to determine that their stations are compliant with the new regulations. Up until now, only hams who have had to file an Amateur Radio application with the FCC have had to certify compliance with the RF exposure rules. As of September 1, all amateurs must comply.

Under the regulations, an amateur station must not exceed the maximum permissible exposure limits for transmitter operation. MPEs are both frequency and power-dependent.

"These regulations are not a major burden on the Amateur Radio Service," said ARRL Lab Supervisor Ed Hare, W1RFI, the League's point man on RF exposure issues. "Most hams are already in compliance with the MPE requirements; some hams will need to conduct a simple station evaluation."

By and large, the FCC has put hams on the honor system, but compliance with the RF exposure rules is not optional.

"Even aside from the fact that every US amateur is required to follow the RF safety regulations, amateurs owe it to themselves, their families, their neighbors, and the general public to follow the FCC guidelines to the letter," said ARRL Pacific Division Director Jim Maxwell, W6CF, in urging compliance.

A complete description of the rules is available on the ARRL Web site at <http://www.arrl.org/news/rfsafety/>. The site also contains resources to make your station evaluation quite painless.

The topic of RF exposure and safety also has been covered extensively in QST (see "FCC RF-Exposure Regulations--the Station Evaluation" by Ed Hare, W1RFI, January 1998 QST). Hare also wrote the standard Amateur Radio reference on the topic of RF exposure, *RF Exposure and You*, published by the ARRL. The book is aimed at answering all questions about meeting the FCC RF exposure regulations. It includes

team will be on site at various times to make final preparations to put the satellite aboard an Ariane 5 rocket for its journey into orbit.

Satellite launch contractor Arianespace says the launch campaign for the next Ariane 5 mission--Flight 130, the sixth Ariane flight--now is back on track following a postponement earlier this summer. As a result of the thruster problem, the mission's original July 25 launch date now has been reset to September 14. Arianespace changed out all six Ariane 5 attitude control system thrusters for Flight 130 after a similar thruster failed during bench testing in Europe. The hydrazine propellant system ensures "roll control" during the flight of the Ariane 5's main and upper stages. In addition, the attitude control system provides three-axis control during satellite positioning maneuvers critical to the success of missions such as Phase 3D.

The Ariane 5 flight that is supposed to carry Phase 3D into space will follow this fall. That mission, which previously had been designated as Flight 132, presumably will be issued a new flight number once it's on the launch schedule. A launch contract accepting Phase 3D as a payload for the first suitable Ariane 5 launch vehicle was signed last October.

Arianespace is expected to publish an updated launch manifest with a specific launch date for the Phase 3D flight once the next Ariane 5 flight has gone into space. For more information about Phase 3D, visit the AMSAT-NA Web site, <http://www.amsat.org/>.

CONVENTION TAKES BACK SEAT TO SEARCH AND RESCUE

Members of the New Mexico Search and Rescue Support Team--most of them amateurs--found themselves called away from the recent ARRL New Mexico Section Convention to help a fallen rock climber in the Sandia Mountains.

"The Amateur Radio community is very strongly involved in search and rescue throughout the year," says New Mexico Search and Rescue Support Team President Bob Rieden, WD5IDL, an ARRL member. Rieden's team has 35 members, nearly all of them licensed.

Rieden says the rescue mission on August 26 was a bit more complicated than most. A man--part of a party of four climbers--had been attempting to scale a very steep rock wall known as "The Shield" and was about halfway up the 1200-foot face when he fell about 25 feet suffering serious injuries. It wasn't until 3 o'clock Sunday morning that rescuers were able to raise the victim to the top of the rock wall. From there he was whisked off to a hospital by a National Guard helicopter.

Rieden says a lot of the communication and coordination was handled by Amateur Radio operators. One of the incident commanders, John Maio, WB2ARS, also was an amateur, as was Operations Officer Don Stone, N5DRS. With thunderstorms reported in the area, hams also were involved in collecting weather information.

The conference also reaffirmed the IARU's determination to obtain an exclusive worldwide allocation of no less than 300 kHz in the vicinity of 7 MHz. Region III IARU directors were instructed to "treat achievement of this objective as a matter of the highest priority." The conference also supported seeking an Amateur Radio HF allocation in the vicinity of 5 MHz and a low-frequency allocation in the vicinity of 136 kHz or 160 to 190 kHz.

In addition to Stafford, those attending the conference from the US included IARU President Larry Price, W4RA; ARRL Executive Vice President and IARU Secretary David Sumner, K1ZZ; and ARRL Technical Relations Manager Paul Rinaldo, W4RI.

The next IARU Region III Conference will be held in Taipei, Taiwan, in September 2003.--IARU; WIA

ARISS HAM GEAR REACHES DESTINATION

The Amateur Radio on the International Space Station initial station equipment plus supplies that the ISS Expedition 1 crew will need later this year were delivered to the ISS this week. After entering the station itself, astronauts and cosmonauts worked to unload the cargo--including the ham gear--from the shuttle Atlantis and from a docked Russian Progress rocket and to set the ISS up for its first crew.

There are three hams on the shuttle Atlantis mission. No Amateur Radio operation will take place from the ISS until the Expedition 1 crew arrives in early November, however, nor will there be any ham activity from the shuttle on this trip.

On September 11, US astronaut Ed Lu, KC5WKJ, and Russian cosmonaut Yuri Malenchenko completed a more than six-hour space walk. Lu and Malenchenko attached nine power, data and communication cables to the ISS's newest component, the Russian-built Zvezda service module, and to the Zarya control module. They also assembled a magnetometer boom on Zvezda's exterior.

Other amateurs aboard include astronauts Dan Burbank, KC5ZSX, and Richard Mastracchio, KC5ZTE.

NASA reportedly located a small problem on the Zvezda--a jammed solar panel on one of its wings. The panel failed to unfold following the launch of the module, and NASA says it might have to repair the problem on a later mission. NASA also says one of eight Russian-made batteries used to power the ISS might be malfunctioning.

Atlantis blasted off on schedule last Friday from the Kennedy Space Center. It delivered amateur VHF and UHF hand-held transceivers for the multi-national ARISS program, as well as a TNC for packet, a specially developed headset and signal adapter module plus power adapters and interconnecting cables. The gear will be stowed aboard the ISS until

the Expedition 1 crew of US astronaut Bill Shepherd, KD5GSL, and Russian Cosmonauts Sergei Krikalev, U5MIR, and Yuri Gaidzenko come aboard.

The ARISS initial station gear will be installed temporarily aboard Zarya and will use an existing antenna that's being adapted to support FM voice and packet on 2 meters. The gear will be re-installed in the Zvezda Service Module next year, and it will have both 2-meter and 70-cm capabilities. A Russian call sign, RZ3DZR, has been issued for the ISS ham radio station.

For more information about Amateur Radio on the ISS and SAREX, visit the ARISS Web site, <http://ariss.gsfc.nasa.gov/>.

AO-27 IS BACK ON THE AIR!

The AO-27 satellite has returned to analog Amateur Radio service. AO-27 ground controller Chuck Wyrick, KM4NZ, reports the satellite showed up on its first North American daylight pass on September 9.

Wyrick advises operators to wait until they hear the satellite in analog mode--ie, no data being sent--before transmitting on the 145.850 MHz uplink frequency. AO-27's downlink is 436.800 MHz.

Wyrick says the AO-27 analog FM repeater will be turned off for a few days at a time over the next few months so ground controllers can gather whole orbital data to verify the health of the satellite.

AO-27's computer crashed July 31, and it took more than one attempt to reload the software and get the satellite up and running again.

"A lot of work has saved AO-27 for many more enjoyable amateur QSOs," Wyrick said in a posting to the AMSAT bulletin board.

FCC CANCELS LICENSE OF "CAPTAIN TRUTH" SUSPECT

The FCC has cancelled the license of the individual it strongly suspects was "Captain Truth." The Commission notified John M. Yount of Newton, North Carolina, on September 5 that it was canceling his Amateur Extra class ticket because he failed to appear for re-examination. Yount had held the call sign K4QIJ.

The FCC zeroed in on Yount last spring as a prime suspect in its "Captain Truth" investigation into unidentified Amateur Radio transmissions and malicious interference. FCC Special Counsel for Amateur Radio Enforcement Riley Hollingsworth wrote Yount on March 29, citing FCC and other close-in monitoring evidence that indicated Yount's station was the source of "malicious interference and jamming" on 20 and 75 meters.

Hollingsworth said this week that "Captain Truth" has not been heard on the air since the FCC's initial letter to Yount on March 29. After failing to get a satisfactory reply, Hollingsworth wrote Yount in July requesting that he retake his examinations under the supervision of an ARRL-VEC volunteer examiner team on or before September 1. "And he never showed up," Hollingsworth said.

The FCC says radio-direction finding bearings led to Yount's residence and antenna. Part of its monitoring evidence resulted from work done by the FCC's High-Frequency Direction Finding facility in Columbia, Maryland, the FCC said.

Yount suggested in his only reply to the FCC that there were a lot of vehicles and other houses on his property and that someone else could have been responsible for the transmissions the FCC had monitored and tracked.

Hollingsworth said he wrote Yount again on June 1 to seek clarification and additional information in the ongoing investigation before sending the retesting notice on July 17. "I never heard from him again," Hollingsworth said.

SOLAR UPDATE

Solar sage Tad Cook, K7VVV, Seattle, Washington, reports: The sun has been almost spotless this week, which seems odd for what is supposed to be the peak period of activity for solar Cycle 23. The Boulder Sunspot Number went all the way down to 27 on Monday, and the average sunspot number for this reporting week (Thursday through Wednesday) was a tiny bit over half of last week's average. Monday's index was the lowest sunspot number of this year. What we are experiencing now is the wide variation in activity that can be observed even at the peak of the solar cycle.

Activity for the past few days has been picking up, and the latest solar flux forecast for Friday through next Thursday is 160 for Friday and Saturday, and 170 for Sunday through Thursday. Solar flux is expected to stay above 150 until October 5, then reach the next minimum around 125 on October 10 or 11.

Planetary A indices predicted for Friday through next Thursday are 45, 12, 12, 10, 12, 12 and 10. The high A index forecast for Friday is probably due to the M-Class solar flare which erupted at 1213 UTC on Tuesday. Shortly after this flare, the Solar and Heliospheric Observatory recorded a spectacular and fast-moving full-halo coronal mass ejection. The result may be mid-latitude auroral displays, along with a minor to major geomagnetic storm.

Next week is the autumnal equinox, a time when HF conditions should be at their best. Let's hope that the sun cooperates, and gives us more sunspots and less solar flares.

Sunspot numbers for September 7 through 13 were 160, 115, 116, 69, 27, 38 and 96 with a mean of 88.7. The 10.7 cm flux was 173.2, 163.4, 150.9, 140.6, 134.9, 132.6 and 133.2,

with a mean of 147. The estimated planetary A indices were 16, 21, 7, 5, 5, 20 and 10 with a mean of 12.

IN BRIEF:

* Amateur Radio to the rescue--again: Amateur Radio operators in the Dayton, Ohio, area sprang into action August 10 to assist in the search for a missing boy in the suburb of Huber Heights. Rob Taylor, KC8LNO, an avid scanner enthusiast, monitored a police dispatch for a missing eight-year-old mentally challenged boy who was in need of vital medication. The boy, named Zachary, had last been seen pursuing an ice cream truck near his home. Taylor called Jim Ebner, N8JE, a fellow member of the Huber Heights ARC, who, in turn, called local authorities to offer Amateur Radio assistance. Police accepted the offer, and other amateurs in the area were summoned to the scene via a local repeater and deployed to assist in the search. A mobile amateur communication command post was set up using a mini motor-home provided by Bob Beach, W8LCZ, and communication was conducted on the Huber Heights Amateur Radio Club's 442.95 MHz repeater and on 2-meter FM simplex. The three-and-a-half hour search ended happily when Zachary telephoned from a residence a half-mile from home. He soon was reunited with his family. The family and the Huber Heights Police Department thanked amateur operators who assisted in the search for their quick response and for a job well done.--Phil Thomas, W8RMJ

* Young ham receives award for antenna paper: Heather Cox, KB8VYQ, of Ann Arbor, Michigan, received an American Statistical Association Certificate of Recognition for her academic paper, "Which Ham Radio Antenna is the Best Choice for Point to Point Communication?" The paper, submitted to the 42nd annual Southeastern Michigan Science Fair 2000, is an experimental thesis that demonstrates how to determine the effectiveness of various antennas. The experiments were carried out on 70 cm, and the paper includes photographs, charts and graphs to document and support her findings. Her conclusion: The Yagi is the best-performing antenna of those she tested. Heather, 15, holds a Technician license. Now a high school junior, she drafted the paper during her sophomore year. A copy of her thesis appears on the ARRLWeb TIS page, <http://www.arrl.org/tis/>. The report is on the "Antenna Theory" page, <http://www.arrl.org/tis/info/anttheory.html>.--thanks to Al Alvareztorres, AA1DO

* Finding ARRL Section, Division Web sites: Want to find your ARRL Section or Division Web site--or to learn if your Section or Division has a Web site? The quickest and easiest way is to visit the ARRL Section Managers page, <http://www.arrl.org/field/org/smlist.html>. This often-overlooked page on ARRLWeb contains links to all Section and Division pages, if available. This URL also appears on page 12 in every issue of QST, where you can find the names, addresses, telephone numbers and e-mail addresses of all ARRL Section Managers. Contact information for all ARRL Directors and Vice Directors as well as for various departments and individuals is

found on page 10 of any issue of QST. And, oh, by the way: To submit news items from your Section or Division that might be of interest to ARRL members or to the general Amateur Radio community, send them to ARRL Senior News Editor Rick Lindquist, N1RL, n1rl@arrl.org.

* IARU picks theme for World Amateur Radio Day: The IARU Administrative Council has selected "Providing Disaster Communications: Amateur Radio in the 21st Century" as the theme for World Amateur Radio Day 2001. The occasion will be marked next April 18. The selection was designed to help dispel the notion that technological changes have bypassed and diminished the future role of the amateur services. The IARU also wants to reaffirm the importance of Amateur Radio as a resource to help mitigate the effects of disasters by providing communications to aid humanitarian efforts.

* New emergency communications Web page: An "Emergency Communications" Web Site now is available at <http://www.arrl.org/field/emergency/>. The page provides a ready-reference Web Site with links to the latest ARRL bulletins, The ARRL Letter, and weather reports as well as to other Amateur Radio organizations active in emergency operations, such as the Hurricane Watch Net, The Salvation Army Team Emergency Net (SATERN), and SKYWARN. There's also an Emergency Communications "Q&A" section, and a link to contact various ARRL Headquarters personnel during an emergency. Other linked resources include The Net Directory, IARU member societies, ARRL field leadership and club-search.

* Emergency Communications course site moved: The Emergency Communication (EmCom) Certification pilot project outline and related materials have been moved. The new URL is <http://home.earthlink.net/~w0ipl/emcom-rd.htm>. If you experience any problems with the new URL or have any other questions or concerns, contact ARRL Certification Specialist Dan Miller, K3UFG, k3ufg@arrl.org; 860-594-0340. Miller says the program is proceeding on target, and Part 1 of Level I is expected to debut in late October.

* Alpha/Power to cease linear manufacturing: Amateur linear amplifier manufacturer Alpha/Power Inc of Longmont, Colorado, has announced plans to cease engineering and manufacturing operations once the current run of Alpha 87A and 99 amplifiers is completed. Alpha/Power said that that warranty and post-warranty service will continue to be available. Dick Ehrhorn, W0ID/W4ETO, says that "a combination of health issues and family obligations" has made it impossible for John Brosnahan, W0UN, the president and technical director of Alpha/Power, to continue at his present pace with Alpha/Power. Ehrhorn said he's "not willing to risk that Alpha legacy" with someone else, "Nor am I aware of any person or entity with the desire, the proven ability, the commitment, and the resources to acquire Alpha and perpetuate the standards to which we've been dedicated for thirty-one years." Ehrhorn says the company remains open to "serious discussions," however. In 1996, Ehrhorn and Dave Wilson, AA0RS/G3SZA, bought back the Alpha amplifier business from ETO, which had merged with Applied Science and Technology in 1995. Ehrhorn founded ETO in 1970 and designed all the

early Alpha linears. By 1995, it was a \$20-million company. For more information, visit the Alpha/Power Web site, <http://www.alpha-power-inc.com>.

--Alpha/Power news release

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